

MEMORANDUM OF UNDERSTANDING

between

THE EUROPEAN UNION

and

THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY

The European Union, represented by the European Commission, hereinafter referred to as "the Commission", represented for the purpose of signing this Memorandum of Understanding by Mr. Stephan Lechner, Director of the Institute for the Protection and Security of the Citizen (IPSC) of the Joint Research Centre, hereinafter referred to JRC, duly authorized to sign,

on the one part,

and

The National Institute of Standards and Technology, hereinafter referred to as NIST, 100 Bureau Drive, Stop 8611 Gaithersburg, MD 20899-8611- USA, represented for the purpose of signing this Memorandum of Understanding by Patrick Gallagher, Director, duly authorized to sign,

on the other part,

Hereafter referred to individually as 'the Party' or collectively as 'the Parties'

PREAMBLE

Whereas the Commission's Joint Research Centre's mission is to provide customer driven scientific and technical support for the conception, development, implementation and monitoring of European Union policies. As a service of the European Commission, JRC functions as a reference centre for science and technology for the Union and serves the common interests of the Member States while being independent of special interests. Through its Institute for the Protection and Security of the Citizen (IPSC) in Ispra, the JRC conducts research in the fields of security and infrastructure protection.

Whereas NIST is a non-regulatory federal agency within the Department of Commerce of the Government of the United States whose mission is to promote U.S. innovation and industrial competitiveness by advancing measurement science, standards, and technology in ways that enhance economic security and improve our quality of life



Whereas the Parties wish to establish a mutually beneficial cooperation in the fields of security, safety and citizen protection, in particular as regards structural vulnerability assessment of civil engineering infrastructures, security test methods and assessments etc., in order to benefit from their complementary activities and assets and to share among each other the knowledge arising there from;

Whereas the Parties wish to undertake joint activities of mutual interest in accordance with their specific needs and objectives, and, shall, by separate and formal agreements, determine the areas and subject of such joint activities, on the basis of the understanding set out in this Memorandum of Understanding ("MOU").

For the purpose of this MOU, security shall mean non-information-technology-related security – this MOU does not cover cybersecurity activities.

In consideration of the above, the Parties hereby agree to the following:

ARTICLE 1 - SUBJECT AND SCOPE OF THE MOU

1.1 The subject of this MoU is to establish the basis for future collaboration between the Parties in the fields

1.1.1 of structural vulnerability, security, safety and protection of civil engineering structures,

1.1.2 security test methods, assessments and related procedures, including aspects of interoperability, and

by setting out the overall framework for such collaboration in terms of general context, technical areas and procedures for entering into formal agreement(s), detailing the specifics of the collaboration.

1.2 The envisaged cooperation between the Parties will be aimed at coordinating research activities in the fields of common interest (scientific subjects), specified in Technical Annex 1, in order to ensure information sharing and efficient use of resources.

1.3 In case the Parties decide to undertake joint activities in any of the scientific subjects identified in the Technical Annex 1, they shall, prior to undertaking such activities, enter into a separate and formal collaboration agreement, covering the technical, legal (including liabilities of each Party and intellectual property rights) and financial aspects of the envisaged collaboration.



- 1.4 Except for the confidentiality obligations laid down in Article 3, this MoU does not establish legally binding obligations on the part of any of the Parties. Neither Party shall incur nor be bound to any legal obligations or expense hereunder to the other Party until and unless definitive collaboration agreements under Article 1.3 have been negotiated and signed by duly authorised representatives of both Parties.

ARTICLE 2 - MODALITIES OF CO-OPERATION

- 2.1 All activities undertaken pursuant to this MoU shall be subject to the availability of appropriate funds, personnel and other resources as well as to the applicable laws and regulations, policies and programmes of each Party. This MoU does not represent any commitment with regard to funding on the part of either Party.
- 2.3 Each Party shall bear its own costs in connection with the implementation of this MoU and there shall be no transfer of money between the Parties.
- 2.4 The exact modalities of cooperation between the Parties on any of the scientific subjects specified in Technical Annex 1 will be set out in the collaboration agreements related to the particular subject.

ARTICLE 3 - CONFIDENTIALITY

The Parties to this MoU do not anticipate the exchange of confidential information under this framework agreement. The protection of confidential information, if any, shall be addressed in separate formal collaboration agreements or, as necessary, in separate written nondisclosure agreements between the Parties.

ARTICLE 4 - ENTRY INTO FORCE, DURATION AND RENEWAL

The MoU will enter into force on the date of its signature by the last Party and will remain in effect for a period of 2 (two) years thereafter. The MoU can be extended or amended only by written agreement signed by the duly authorised representatives of both Parties.

ARTICLE 5 - TERMINATION OF THE MEMORANDUM OF UNDERSTANDING

Either Party may terminate this MoU at any time upon serving a three-month prior written notice to the other Party.



ARTICLE 6 - ADMINISTRATIVE PROVISIONS

All correspondence concerning the performance of this MoU shall be sent in two copies to the following addresses:

<p><u>For administrative questions</u></p> <p>European Commission Joint Research Centre IPSC TP 268, I-21027 - ISPRA (VA) Italy</p> <p>To the attention of Ms Barbara Marchetti</p>	<p><u>For administrative questions</u></p> <p>National Institute of Standards and Technology International and Academic Affairs Office, Stop 1090 Gaithersburg, MD 20899-1090</p> <p>To the attention of Dr. Claire Saundry</p>
<p><u>For technical questions related to 1.1.1</u></p> <p>European Commission Joint Research Centre IPSC, Unit G05, TP 480, I-21027 - ISPRA (VA) Italy</p> <p>To the attention of Mr. George Solomos</p>	<p><u>For technical questions related to 1.1.1</u></p> <p>National Institute of Standards and Technology Engineering Laboratory, Stop 8611 Gaithersburg, MD 20899-8611</p> <p>To the attention of Mr. Stephen A. Cauffman</p>
<p><u>For technical questions related to 1.1.2</u></p> <p>European Commission Joint Research Centre IPSC, Unit G06, TP 720, I-21027 - ISPRA (VA) Italy</p> <p>To the attention of Mr. Alois J. Sieber</p>	<p><u>For technical questions related to 1.1.2</u></p> <p>National Institute of Standards and Technology Special Programs Office, Stop 8102 Gaithersburg, MD 20899-8102</p> <p>To the attention of Mr. Nicholas G. Paulter, Jr.</p>

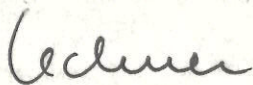



ARTICLE 7 - ANNEXES

The following annexes shall form an integral part of this MoU:

Annex 1 Technical Annex

IN WITNESS whereof the duly authorized representatives of the Parties have signed two originals of this Memorandum.

<p>Date: 14 DIC. 2010</p> <p>Stephan LECHNER Director Institute for the Protection and Security of the Citizen (IPSC)</p> <p>Signature: </p>	<p>Date: NOV 30 2010</p> <p>Patrick Gallagher Director National Institute of Standards and Technology (NIST)</p> <p>Signature: </p>
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Annex 1
Technical Annex

The potential scientific subjects under this MoU are listed in the following:

Related to 1.1.1

- a) To perform collaborative research to develop validated models for use in the field of structural vulnerability assessment of civil engineering structures subjected to severe loads, such as those due to explosions, impact, fire, earthquakes; with particular attention to be devoted to the problem of progressive collapse and structural performance under fire loads.
- b) To deepen the understanding of the current approaches of the relevant construction codes, standards, and practices (USA, Eurocodes, International) and to engage in joint research activities contributing to the development of performance-based codes, standards, and practices to prevent progressive collapse of structures, to improve structural performance under fire loads, and to improve the seismic safety of structures.
- c) To exchange expertise on laboratory experimental technologies and numerical techniques and methods used to validate analytical models.
- d) To exchange and share experimental data needed for related cooperation and general scientific research activities.

Related to 1.1.2

- e) To perform collaborative research to develop validated methods and procedures for use in the field of security testing and assessment of security technologies subjected for identification and monitoring of people, secure communication for emergency, non-invasive inspection systems and related multi-technology integration, interoperability of security devices .
- f) To deepen the understanding of the current approaches of the relevant testing methodologies, standards, and practices with regard to identification and monitoring of people, secure communication for emergency, non-invasive inspection systems, and related multi-technology integration, and to engage in joint research activities contributing to the development of performance-based methods, standards, and practices to reduce related threat and attack mechanisms, reduce weaknesses and to improve the performance and efficiency of countermeasures.
- g) To exchange expertise on laboratory experimental technologies and analytical methods used to validate analytical models.
- h) To exchange and share experimental data needed for related cooperation and general scientific research activities.

